

# THE FARMER & GARDENER

PUBLISHED EVERY TUESDAY BY THE PROPRIETORS, E. P. ROBERTS AND SANDS & NEILSON—EDITED BY E. P. ROBERTS.

No. 13.

BALTIMORE, MD. JULY 25, 1837.

Vol. IV.

THIS publication is the successor of the late  
**AMERICAN FARMER.**

and is published at the office, at the N. E. corner of Market and Charles streets, at TWO DOLLARS AND FIFTY CENTS per annum, if paid within one month from the time of subscribing, or \$3 if after that time. All letters to be post paid.

BALTIMORE: TUESDAY, JULY 25, 1837.

PRINTERS are referred to an advertisement on the last page.

## SPRING WHEAT.

We would thank those editors who may be located in neighborhoods where Italian Spring wheat may have been sown the present season, to make inquiry as to the success that may have attended the experiments made of its culture, and notice the same in their papers.

We know that a great many gentlemen in Virginia, Maryland, and Pennsylvania, put in small quantities with a view of testing its adaptation to their soils and climates, respectively, and as there is a very deep interest prevailing to learn the result of the experiments made, every light that can be thrown upon the subject will be acceptable.

We see it stated in a *Maine* paper, that the bounty, which will be given by that state upon wheat grown therein, the present season, will amount to \$150,000.

We were glad to find the following communication in both of the Winchester papers upon the same day. The proposition it contains is an excellent one, and if adopted generally in every neighborhood where there is lime-stone, would be productive of much good.

[From the Winchester Republican.]

**Farmers of the Valley:** From Professor Rogers' report to our late legislature, and his analysis of limestones, it appears that those in our valley are eminently adapted to agricultural purposes; and as, in the opinion of the same gentleman, it is one of the greatest mistakes in husbandry to suppose that lime is an improper manure for limestone land, as it evidently meliorates clayey, and renders sandy soils more tenacious: and as it has been, and is now the practice of the most scientific and successful farmers throughout the world, to use and recommend lime, as an essential requisite in compost manures for renovating exhausted soils, and enabling them again fully to recompense the industrious cultivator, by pouring into his lap abundant crops of wheat and other rich productions of the soil; and as it appears

from the late improvements in the construction of limekilns that not only 30 per cent. may be saved in wood, but an additional value imparted to the quality of the lime; and moreover, as it would be unnecessarily expensive in these hard, hard times, for every one who would wish to improve his farm by lime, to build a limekiln on the most approved plan; for these and other reasons, I would, with all deference, propose:

The forming ourselves into companies throughout the Valley, of ten or twelve adjoining farmers, and at our joint expense to have permanent limekilns erected, from which we may obtain, for the benefit of our farms, what quantity of lime soever we may want, and that not only of the best quality, but at the most reduced price. As the limestone will be selected which on a chemical analysis shall be found best fitted for farming purposes, it will not be considered, by any member of the company, as of much importance, on what part of his or his neighbor's farm the limekilns may be built, as they will be kept in constant operation, and the lime taken away in its unslacked state by the company's wagons that bring their wood.

In some parts of England the farmers haul lime from a distance of many miles for the improvement of their farms and the increase of their crops, and in the three Lothians of Scotland, with lime as an indispensable article in their compost manures, they raise of wheat to the astonishing average of forty bushels per acre! and yet we hesitate about using lime on our farms in the Valley, and not only because we have it of the very best quality, but likewise in the greatest abundance!!

Two or three parts of earth and leaves taken from our woods, or of virgin soil obtained from any place, two parts of lime and as many parts from our stable yards, will form a compost, which carefully mixed, spread, and ploughed into our wheat fallows, would yield us from 25 to 30 bushels per acre. Then should we wonder at the luxuriance of crops, not as at present be obliged to purchase our seed, brought from the distance of many thousand miles, and endeavor in vain to borrow its price, when the door of every bank in the union is shut upon us, and denies us credit, as is the present unhappy situation of

A FARMER.

## AGRICULTURAL SURVEY.

We noticed some time since the appointment of the Rev. Henry Colman, by the government of Massachusetts, to make an agricultural survey of that state, and we insert below, in to-day's journal, an article upon the subject, by which the nature and extent of his contemplated labors will be seen. Although this survey is local, we consider it highly important, as from its usefulness other states

may profit by the example about to be set them. Mr. Colman is a practical as well as scientific farmer, and will doubtless throw much light upon the subject in his report, the forthcoming of which we shall look for with no ordinary degree of anxiety. Such surveys by competent individuals, must exercise the happiest effects upon the interests of the husbandry of a state or country, and we trust to see them become fashionable with every legislative body in our union.

[From the Salem Gazette.]

## AGRICULTURAL SURVEY.

Rev. Henry Colman, having been appointed by the Executive of the Commonwealth, under the provisions of a resolve of the Legislature, Commissioner to make an agricultural survey of the state, has addressed a circular to various inhabitants of the different towns, with a copy of which we have been favored. As a very large proportion of our readers are more or less engaged in farming operations, we copy for the information of such of them as may not see the circular, the heads of the inquiries to which answers are desired. The numerous subsidiary queries, coming under each general head, would occupy more of our space than we can conveniently spare to-day.

### INQUIRIES.

1. The nature of the soil, in different parts of the state, and particularly in reference to the crops cultivated. 2. The climate, with reference to the crops grown; the usual time of ploughing, planting and harvesting; the occurrence of early frosts; the length of winter; the average temperature; and the quantity of rain or snow in any year. 3. The number of acres in any town cultivated or in any form productive. 4. Products.

5. Crops cultivated—wheat, Indian corn, rye, barley, oats, buckwheat, peas, beans, tares, lupins, hemp, flax, tobacco, hops, broom corn, teasels, madder, woad, saffron, rape, mints, grass for bonnets, mulberry for silk, sunflower for oil, poppy for opium, mustard, succory, herds grass, clovers, red top, orchard, lucerne, tall meadow oats, English bent, rye grass, millet, foul meadow, blue grass, salt meadow grasses, thatch, potatoes, cabbages, onions, carrots, parsnips, beets, artichokes, pumpkins, turnips, fruits, garden vegetables.

6. Other products—wool, silk, beef, pork, mutton, lard, cheese, butter.

7. Rotation of crops, 8. modes of cultivation, 9. diseases of crops, blight, mildew, rust, curl, &c. 10. weeds, and methods of extermination, 11. refuse of crops, preservation, value and use for fodder and manure, 12. manures, 13. live stock, 14. animals for labor, 15. animals for beef, 16. markets, returns of Danvers and Brighton markets, 17. animals for the dairy, 18. dairy produce, 19. swine, 20. sheep, 21. horses, 22. animals kept for breeding, 23. feeding of animals, 24. poultry, 25. dia-

cases of domestic animals, 25, farm buildings, 27, bees, 28, orchards, gardens, 29, diseases of trees, 30, injurious insects and vermin, 31, fences, 32, forest trees, 33, general improvements, 34, great farming operations, 35, examples in detail and in full of general farm management, and particular improvements, 36, labor, 37, every description of farming implements, &c.

38. Condition of roads, and the improvements in the construction of roads, as intimately connected with the agricultural prosperity of a country.

39. Miscellaneous subjects. Size of farms, farm capital, farm accounts, laws relating to agriculture, taxes and burdens upon land, agricultural pauper establishments, agricultural and manual labor schools and colleges, agricultural societies—their funds, premiums, operations, cattle shows, agricultural libraries and publications.

40. Manufactures connected with agriculture.

41. Objects of particular inquiry, with a view to agricultural improvements. Improvements in live stock, in utensils and farm building, in new vegetables, fruits, and grasses, in seeds for earliness and abundant yield, in economical preparations and uses of food for man and beast; in economical application of human and brute labor; in application of water, steam or wind power to purposes of husbandry; in cultivation, depth of ploughing, mixing of soils, compost manure, manuring green crops, inverting and covering the sward, drill culture, sowing broad-cast, management of any particular crop, &c. &c. Improvements in rotation of crops, in uses of lime, gypsum, bone dust—in application of ashes, crude or spent—in application or discovery of other manures—in construction of farm buildings.

42. Exports and imports of agricultural produce. Capacity of the state to supply its own wants.

43. Specimens of soils to be analyzed. Models of improved implements, &c. &c. Samples of wool, silk and sugar.

In conclusion, Mr. Colman remarks—

"My duty will require me to visit every town in the state; and my wish is to visit every principal farm in every town, the management of which promises to afford useful information. In determining what particular farms to visit, it is obvious that I must necessarily be directed by the advice or suggestions of others, which I shall always be most happy to receive: but in order to avoid all invidiousness, I beg leave to state distinctly in the outset, that unless prevented by extraordinary circumstances, I will visit every farmer who will do me the kindness to invite me to his premises; and I have perfect confidence in finding oftentimes as creditable and instructive management among small farmers as among those who pursue agriculture upon an extensive scale. I therefore solicit such invitations, and will gladly avail myself of them.

I purpose to make the survey by counties, and am anxious to prosecute it with all convenient despatch. I beg the farmers to whom this circular is sent, to give it an attentive and repeated examination. The objects of the survey are most important to the farming interest. I go to seek information from practical men; and shall be happy to communicate all I receive. I solicit the

correspondence and co-operation of such men.

It is reasonable to hope that the inquiries will elicit much valuable knowledge; that they will contribute to excite and strengthen a spirit of improvement in agriculture, this most honorable and useful pursuit, that they will unfold agricultural resources and capacities of which we were not fully aware; that they will strengthen those which already exist, and present new reasons for a devoted attachment to our state—a state, which, if its soil be comparatively hard and sterile, and its climate severe, is in a high degree favorable to longevity, to strength of muscle, vigor of intellect, and moral energy; furnishes an ample reward to patient industry, temperance and frugality; and under the administration of upright magistrates and wholesome and equal laws, which she has so long and eminently enjoyed, abounds in the elements of domestic comfort, and social improvement and prosperity.

Yours respectfully,

HENRY COLMAN.

Boston, June, 1837.

#### ELECTRO MAGNETIC MACHINE.

We published some weeks since a very brief abstract of this new invention, and as its importance seems to call for a more full detail, we insert to-day the account from Professor Silliman's excellent work.

From the Amer. Journal of Science and Art.

*Notice of the Electro-Magnetic Machine of Mr. THOMAS DAVENPORT, of Blandon, near Rutland, Vermont.*

Many years have passed since motion was first produced by galvanic power. The dry columns of De Luc and Zamboni caused the vibration of delicate pendulums and the ringing of small bells for long periods of time, even several years, without intermission.

In 1818—20, Prof. Oersted, of Copenhagen, discovered that magnetism was evolved between the poles of a galvanic battery. Prof. Schweigger of Halle, Germany, by his galvanic multiplier, succeeded in rendering the power manifest, when the galvanic battery was nothing more than two small wires, one of copper and the other of zinc, immersed in as much acidulated water as was contained in a wine glass. The power thus evolved was made to pass through many convolutions of insulated wire, and was thus augmented so as to deflect the magnetic needle sometimes even 90°. Prof. Moll, of Utrecht, by winding insulated wire around soft iron imparted to it prodigious magnetic power, so that a horse shoe bar, thus provided, and connected with a galvanic battery, would lift over one hundred pounds. About the same time, Mr. Joseph Henry, of Albany, now Prof. Henry, of Princeton College, by a new method of winding the wire, obtained an almost incredible magnetic force, lifting six or seven hundred pounds, with a pint or two of liquid and a battery of corresponding size; nor did he desist, until, a short time after, he lifted thousands of pounds by a battery of larger size, but still very small, (1830.)

This gentleman was not slow to apply skill to the generation of motion, and a successful attempt

of his is recorded in this journal. A power was thus applied to the movement of a machine, by a beam suspended in the centre, which performed regular vibrations in the manner of a beam of a steam engine. This is the original application from which have sprung, or at least to which have succeeded, several similar attempts, both in this country and in Europe. A galvanic machine was reported to the British association in 1835, by Mr. McGauley of Ireland, and he has renewed his statements of successful experiments at the late meeting at Bristol. Mr. Sturgeon, of Woolrich, England, also reports a galvanic machine in use on his premises for pumping water, and for other mechanical purposes.

But, I believe that Mr. Davenport, named at the head of this notice, has been more successful than any other person in the discovery of a galvanic machine of great simplicity and efficiency. Having been recently invited to examine a working model, in two varieties of form, and to report the result, I shall now attempt nothing more than a general description, such as may render intelligible the account I am about to give.

1. The Rotary machine, composed of revolving electro-magnets, with fixed permanent magnets.

This machine was brought to New Haven, March 15, 1837, by Mr. Israel Slade, of Troy, New York, and by him set in motion for my examination. The moving part is composed of two iron bars each placed horizontally, and crossing each other at right angles. They are both five and a half inches long, and they are terminated at each end by a segment of a circle made of soft iron; these segments are each three inches long in the chord line, and their position as they are suspended upon ends of the iron bars, is horizontal.

This iron cross is sustained by a vertical axis, standing with its pivot in a socket, and admitting of easy rotation. The iron cross bars are wound with copper wire, covered by cotton, and they are made to form, at pleasure, a proper connexion with a small circular battery, made of concentric cylinders of copper and zinc, which can be immersed in a quart of acidulated water. Two semicircles of strongly magnetized steel, form an entire circle, interrupted only at the two opposite poles, and within the circle which lies horizontally, the galvanised iron moves in such a manner that its iron segments revolve parallel and very near to the magnetic circle, and in the same plane. Its axis at its upper end, is fitted by a horizontal cog-wheel to another and larger vertical wheel, to whose horizontal axis, a weight is attached and raised by the winding of a rope. As soon as the smallest battery, destined to generate the power, is properly connected with the machine, and duly excited by diluted acid, the motion begins by the horizontal movements of the iron cross, with its circular segment of flanges, by the galvanic connection, these crosses and their connected segments are magnetized, acquiring north and south polarity at their opposite ends, and being thus subjected to the attracting and repelling force of the circular fixed magnets, a rapid horizontal movement is produced, at the rate of two hundred to three hundred revolutions in a minute, when the small battery was used and over 600



with a calibrator of large size. The rope was wound up with a weight of 14 pounds attached, and 28 pounds were lifted from the floor. The movement is instantly stopped by the breaking of the connexion with the battery, and then reversed by simply interchanging the connexion of the wires of the battery with those of the machine, when it becomes equally rapid in the opposite direction.

The machine, as a philosophical instrument, operates with beautiful and surprising effect, and no reason can be discovered why the motion may not be indefinitely continued.

2. Rotating Machine, composed entirely of electro-magnets both in its fixed and revolving members.

A machine of this construction has been this day, March 29, 1837, exhibited to me by Mr. Thos. Davenport himself, who came from New York to New Haven for that purpose.

It is the same machine that has already been described, except that the exterior fixed circle is now composed entirely of electro-magnets.

The entire apparatus is, therefore, constructed of soft unmagnetic iron, which being properly wound with insulated copper wire, is magnetized in an instant, by the power of a very small battery.

The machine is the identical one used before, except that the exterior circle of permanent magnets is removed, and in its place is arranged a circle of soft iron, divided into two portions to form the poles.

These semi-circles are made of hoop iron, one inch in width, and one-eighth of an inch in thickness. They are wound with copper wire insulated by cotton—covering about ten inches in length on each semicircle, and returning upon itself, by a double winding, so as to form two layers of wire, making on both semicircles about 1500 inches.

The iron was not wound over the entire length of one of the steel semicircles; but both ends were left projecting, and being turned inward, were made to conform to the bend of the other part; each end that is turned inward and not wound is about one-third of the length of the semicircle. These semicircles being thus fitted up, so as to become, at pleasure, galvanic magnets, were placed in the same machine that has been already described, and occupied the same place that the permanent steel magnets did before. The conducting wires were so arranged, that the same current that charged the magnets of the motive wheel, charged the stationary ones, placed around it, only one battery being used. It should be observed, that the stationary galvanic magnets thus substituted for the permanent steel ones, were only about half the weight of the steel magnets.—This modification of the galvanic magnet, is not of course the best form for efficiency; this was used merely to try the principle, and this construction may be superseded by a different and more efficient one. But with this arrangement, and notwithstanding the imperfection of the mechanism of the machine—when the battery, requiring about one quart of diluted acid to immerse it, was attached, it lifted 16 lbs. very rapidly, and when the weight was removed, it performed more than 600 revolutions per minute.

So sensible was the machine to the magnetic

power that the immersion of the battery one inch into the acidulated water, was sufficient to give it rapid motion which attained its maximum, when the battery was entirely immersed. It appeared to me that the machine had more energy with the electro-magnets, than with those that were permanent, for which the smallest battery, whose diameter was three inches and a half—its height 5½ inches, and the number of concentric cylinders 3 of copper and three of zinc, the instrument manifested as great power as it had done with the largest batteries, and even with a larger calibrator, when it was used with a permanent instead of a galvanic magnet. With the small battery and none but electro or galvanic magnets, it revolved with so much energy as to produce a brisk breeze, and powerfully to shake a large table on which the apparatus stood.

Although the magnetization of both the stationary and revolving magnets was imparted by one and the same battery, the magnetic power was not immediately destroyed by breaking the connexion between the battery and the stationary magnet; for when this was done, the machine still performed its revolutions with great, although diminished energy; in practice, this might be important, as it would give time to make changes in the apparatus, without stopping the movement of the machine.

#### CONCLUSIONS.

1. It appears then, from facts stated above, that electro-magnetism is quite adequate to the generation of rotary motion.

2. That it is not necessary to employ permanent magnets in any part of the construction, and that electro-magnets are far preferable, not only for the moving, but for the stationary parts of the machine.

3. That the power generated by electro-magnetism, may be indefinitely prolonged, since, for exhausted acids and corroded metals, fresh acids and batteries, kept always in readiness, may be substituted, even without stopping the movement.

4. That the power may be increased beyond any limit hitherto attained, and probably beyond any which can be with certainty assigned, since, by increasing all the members of the apparatus, due reference being had to the relative proportionate weight, size, and form of the fixed and moveable wires, and the manner of winding them, and to the proper size and construction of the acid or other exciting agent, and the manner of connecting the battery with a machine it would appear certain, that the power must be increased in some ratio which experience must ascertain.

5. As electro-magnetism has been experimentally proved to be sufficient to raise and sustain several thousands of pounds, no reason can be discovered why when the acting surfaces are, by skilful mechanism, brought as near as possible without contact, the continued exertion of the power should not generate a continued rotary movement, of energy inferior indeed to that exerted in actual contact, but still nearly approximating to it.

6. As the power can be generated cheaply and certainly—as it can be continued indefinitely—as it has been greatly increased by very simple means—as we have no knowledge of its limit, and may therefore presume on an indefinite

augmentation of its energy, it is much to be desired that the investigation should be prosecuted with zeal, aided by correct scientific knowledge, by mechanical skill, and by ample funds. It may, therefore be reasonably hoped that science and art, the handmaids of discovery, will both receive from this interesting research a liberal reward.

Science has thus most unexpectedly placed in our hands, a new power, of great but unknown energy.

It does not evoke the winds from their caverns; nor give wings to water by the agency of heat; nor drive to exhaustion the muscular power of animals; nor operate by complicated mechanism; nor accumulate hydraulic force by damming the vexed torrents; nor summon any other gravitating force, but by the simplest means—the mere contact of metallic surfaces of small extent, with feeble chemical agents, a power every where diffused through nature, but generally concealed from our senses, is mysteriously evolved, and by circulation in insulated wires, it is still more mysteriously augmented, a thousand and a thousand fold until it breaks forth with incredible energy; there is no appreciable interval between its first revolution and its full maturity, and the infant starts up a giant.

Nothing since the discovery of gravitation and of the structure of the celestial system, is so wonderful as the power evolved by galvanism—whether we contemplate it in the muscular convulsions of animals, the chemical decomposition, the solar brightness of the galvanic light, the dissipating, consuming heat, and, more than all, in the magnetic energy which leaves far behind all previous artificial accumulations of this power, and reveals, as there is full reason to believe, the grand secret of terrestrial magnetism itself.

B. S.

New Haven, March 31, 1837.

*Claim of Thomas Davenport.*

In the words of the patent taken out, the invention “consists in applying magnetic and electro-magnetic power as a moving principle for machinery, in the manner described, or in any other substantially the same in principle.”

“Mr. Davenport first saw a galvanic magnet in Dec. 1823, and from the wonderful effects produced by suspending a magnet of 150 lbs. from a small galvanic battery, he immediately inferred, without any knowledge of the experiments of others, that he could propel machinery by a galvanic magnet, and produced his first rotary motion in July, 1834. In July, 1835, he submitted his machine to Prof. Henry, of Princeton, N. J. also without any knowledge of Prof. Henry's experiments in producing a vibratory motion. From this gentleman he received a certificate testifying to the originality and importance of the invention.”

Mr. Davenport is, by occupation, a blacksmith of only a common education, but with uncommon intelligence—his age is about thirty-five.—Mr. Ransom Cook of Saratoga Spring, is associated with Mr. Davenport, and has rendered essential service by the improvements he has made in the machine, and by his assistance in bringing the subject before the public in the most effectual way. Arrangements have been made to take out the patent in Europe.

## EXPERIMENTS IN RAISING LUCERNE.

We find in the Transactions of the Society for the Promotion of Agriculture, &c. two communications from Chancellor Livingston, giving the details and results of fourteen experiments made in the culture of lucerne, upon various soils, and in connexion with various crops. The results were various. In some cases the produce was estimated as high as six tons four cwt. the acre in cured forage; and five crops were taken in a season, two to feed green, and three as hay. In other cases, upon stiff or wet soils, or with grain that lodged, the results were unfavorable. These experiments enabled that intelligent gentleman to lay down some definite rules for our guidance in the culture of this valuable crop, and among them the following:

"1. Never to sow on ground that is not perfectly pulverized.

"2. Not to sow till the earth has acquired a degree of warmth friendly to rapid vegetation, that is, not earlier than the month of May.

"3. To sow with no crop that will probably lodge.

"4. If sown with buckwheat, to apply no gypsum or other manure till the buckwheat is off."

The first course of experiments was made in 1793. The Chancellor closes this communication with expressing his opinion, that lucerne is better adapted to our climate than clover; that it exacts no more labor; that it leaves the soil much better than it found it; and that it is perennial in its duration—having remarked two plants in a common pasture which has defied the bite of cattle for upwards of 20 years.

The second communication details his experiments in 1794, and closes with further suggestions as to the habits and best mode of cultivating the lucerne, viz.

"That it appears to be full as hardy as clover, but like it, to delight in a warm dry soil, though it will flourish in a moist clay, subject, however, to the same casualties in open winters, when both will be thrown out by the frost.

That "when very young, it requires a natural or artificial warmth in the soil, otherwise it languishes, and when the weeds and natural grasses come up, it is unable to contend with them. That it should be sown in a warm soil, in tolerable heat;" that he should prefer for it, ground that had been manured and bore a potato crop the preceding year. That the seed may be sown the first of July. That if the crop becomes yellow, it should be immediately mown, and that it will come forth again free from disorder. That the time for cutting for soiling, is whenever it will fill the scythe—should be cut the first year, to destroy weeds. That it may be fed down by any kind of cattle with as much safety as clover, &c. He urges upon young farmers, not to be discouraged in its culture by older ones, who tell him they have tried it, and that it will not do; and to persevere, and they will succeed in rendering it profitable.

We have had considerable experience in raising lucerne during the last sixteen years. Until recently, we have found it a valuable crop, having been enabled to feed six or seven cattle upon an acre of it during the summer months. For two or three of the last years, our efforts to cultivate it have been less successful, on account of

the severity of our winters, which has destroyed many of the plants, and of the vexatious intrusion of other grasses, particularly of the spear-grass. [*Poa pratensis*.] We think a potato or a ruta baga crop, manured and kept clean is the best crop to precede lucerne; that it should not be sown before the middle of May; that there should be 16 pounds of seed sown to the acre, and that if put in broadcast, winter rye, at the rate of a peck to the acre, is the best grain to sow with the seed of the lucerne. We design to make an experiment in cultivating it in drills, the mode generally adopted in France, and to keep the crop free from weeds and grass with the cultivator, for which Van Bergen's machine is admirably adapted, by merely taking out the forward and central share, and dispensing with the wheel.—*Albany Cultivator*.

[From the Winchester Republican.]

## LIMESTONE,

GROUND, but not BURNED, for agricultural purposes.

The following paper, on the use of Limestone, ground instead of burned, for agricultural purposes, was read before the Lyceum of Natural History of New York, by Wm. Partridge, Esq.

The facts therein set forth, are highly important, and are worthy of being tested by those who have limestone on their farms. We ask for this subject, the attention of our readers, and of those who have heretofore tested, or may hereafter test, the theory by experiment, to furnish us a statement of the result for publication. We shall also be much obliged to Mr. Partridge for a continuation of his favors.

To the President of the Lyceum of Natural History.

SIR—In a conversation I had with you on board a steamboat on the North river, sometime during the summer of 1835, relative to lime, as applied agriculturally, I mentioned the advantage of using it generally in a ground state, as plaster is now used, instead of burning it. You informed me, subsequently, that your farmer had applied some on your land in a state of powder, and found it decidedly beneficial. I then promised to send you my written opinion on the subject, and I now beg leave to fulfil that promise, with an apology for delaying it so many months.

It is well known, to every intelligent agriculturist, that soils covering limestone rocks are the most productive of any on the globe. I know of but one exception, when the limestone is too highly charged with magnesian earth. Our country affords many facts in proof of this assertion. I shall refer to two locations as all sufficient for my purpose. The state of Kentucky has a bed of limestone running underneath its whole surface, and its natural soil has been produced, and is still producing by the abrasion of those rocks. The superior productive powers of the soil of the State is well known to every intelligent farmer in our extensive country, and is spoken of in terms of admiration by Europeans. That part of Pennsylvania extending from the Lehigh Water Gap to Easton, is a limestone country, and affords another instance of its highly productive powers.

In England, the soil deposited in valleys at the foot of limestone hills, are equally productive.

The valley running from the City of Bristol, to the city of Worcester, is of this description, and there is no soil more productive in Great Britain. There are more than twenty spurs of hills bounding that valley, each containing large bodies of limestone rock, and the springs flowing from them, are so charged with limestone, as to incrust every thing lying in them. When the springs issue from the rocks high up the hills, they are much used for irrigating the higher lands, and the beneficial effects are visible to every observer.

Lime, in the state of Chalk, is also used very generally on land near to the Chalk Mountains in England.

The lower part of this State abounds in primitive limestone, and the preceding observations were made with a view to apply the facts to rectify a material error committed, as I conceive, by the farmers in using it on their land. They burn the limestone at considerable expense, and in that state use it for agricultural purposes. I would suggest, as a far better general application, that the limestone be merely ground, and in that state applied to the land. As this may be a new mode of application, I shall endeavor to shew wherein it is preferable to the present.

I have been frequently informed by farmers who use burnt lime on their land, that they keep it some months before using, and that then the good effects are not observed the first year. We have only to ascertain what these facts prove, and the whole mystery will be instantly solved. In burning limestone two materials essential to agricultural productiveness are driven off, its water and its carbonic gas. In its natural state it is a carbonated hydrate, when burnt it is caustic lime (oxide of calcium) made so by the heat driving off its water and carbonic gas. Why does the farmer delay putting it on his land, but for the simple reason that it is too caustic for vegetation. Why does it require to lie in the soil one year before producing any visible fertilizing effect? It is for nothing more than to give it time to return again to a state of carbonated hydrate, the same condition it was in before burning.

I have said that limestone merely ground is the best general mode of applying it to agricultural purposes; there are some exceptions to this rule. When a soil contains "hard roots, dry fibres, or other inert vegetable matter, a strong decomposing action will take place between burnt lime, and the vegetable matter, rendering that which was before comparatively inert, nutritive." Where this is the case, it would be well for the farmer to use one-third burnt lime, and two-thirds of ground limestone, or any other proportion he may find most efficacious. For stiff heavy soils use the limestone coarsely powdered, for in this state, after being well ploughed and harrowed, so as to mix thoroughly with the soil, it would so lighten it as to enable the sun and air to penetrate to the roots of its vegetation, thereby rendering the future crops more productive. For lighter soils it cannot be ground too fine. Our primitive limestone rocks are peculiarly well calculated for this purpose, as the particles are held together by a loose aggregation, and therefore easily reduced to small pieces, or to a fine powder, at the option of the operator.

The question was asked, by a writer in a late



New-York Farmer, "if it be possible that ground limestone can answer the purpose of plaster of Paris." I should say that it can, and it may be, eventually, to a better purpose. The fertilizing property of plaster depends mainly, if not altogether on its hydratic property, that is, on its power to attract moisture during the night, and imparting it gradually to the plants during the day. The carbonate of lime possesses the same property in a considerable degree. I have never heard of these two limestones being analyzed, for the purpose of developing their comparative powers of absorbing moisture from the atmosphere, and their facilities of giving out their moisture at atmospheric temperatures. To have this accurately performed, would be a desideratum with agriculturists.

We know that soils formed by the abrasion of limestone rocks are of the most fruitful description: we see its productive powers when land is irrigated with equal effect in the state of Chalk. Science has developed the properties on which this productiveness depend, and if our farmers would suit their appliances scientifically, we should not now be receiving a supply of agricultural products from Europe.

WILLIAM PARTRIDGE.

[From the Northampton Courier.]

MR. CLARKE'S DIRECTIONS FOR THE MANAGEMENT OF WORMS FIFTY YEARS SINCE.

When the worms are hatching, save all you can of those which come out the first day, and consider them your best worms and you will not be disappointed.

Let your worms be divided into classes—those hatched the first day, be taken from the papers, put on boards by themselves, and called the first class—those hatched the second day to be considered the second class, and so on from day to day.

When the worms are moulting their skin, give them only a few leaves, for the feed of such worms as may be a little later in moulting and for some that are in advance and forwarder. It may so happen that when the class in general is moulting, there will be some that have got through and others that have not begun, and both will want feed.

In this climate they moult the first time at eight days' old, then sick again in four days. In five days more are sick the third time, and in five days afterwards are sick the fourth time. They then eat voraciously five or six days more, till they wind up. The continuance of sickness is uncertain, generally one or two days.

When they begin to wind up, they ought to be followed up close with a great plenty of leaves, till they have all left the shelves.

They ought to travel as little as possible from the shelves or tables where they are fed to the place where they are winding up.

In gathering leaves, instead of picking them when free from moisture, I have found it best to pick them when the dew is on, or even wet with rain, and given to the worms in that state, and to sprinkle with water if they have been kept so as to wilt or dry. In gathering leaves this season, I have plucked off the sprouts or twigs of this year's growth with the leaves on and given in

that state to my worms, and have found this advantage from it—that the worms wasted no leaves as they commonly do when leaves only are strewn over them, and pressing them down so close that they never can eat them. But when the leaves are given them on the twigs, forming hollow places, so that the worm can crawl both under and over, and eat with less waste than when leaves alone are given them. Besides, they eat a considerable part of the twigs, which afford as much nourishment as the leaves. Another advantage is, that worms are not incommoded by the offal which falls down below the twigs upon the table or shelves; and as many worms are inclined to wind up when they are fed, the opportunity is improved by winding the cocoons between the twigs, affording convenient and clean places for the worms to form their cocoons without waste of silk or floss.

EXAMINER.

SILK CULTURE IN A "NUT SHELL."

An Italian gentleman in New York who has been familiar with all the details of Silk business in Italy, has published a little pamphlet, giving facts and opinions on this subject. The following paragraph is designed to show how the business may profitably be connected with agriculture without interfering with the regular industry of the Farmer. It is precisely the way it is proposed to introduce it here and render it lucrative in this country—he gives a practical illustration:

"I will take the case of a farmer who owns merely a small house sufficient for the residence of his family, and about ten acres of land. Without the least sacrifice or diminution of the productiveness, if he would merely surround it with a hedge-row of Mulberries, planted with judgment and according to the best methods, it is certain that it would cost him to do so only a few dollars of expenditure for the purchase of the trees, but the beauty and value of his farm would be immensely improved. At the end of the third year the trees will have arrived at such a growth as to furnish leaves in considerable abundance.

But suppose that they will produce leaves enough only to feed the silk worms from two ounces of eggs, yet such a number if carefully nurtured would yield at a moderate estimate, one hundred and seventy-five pounds of cocoons, which at twenty cents a pound would give a profit of \$68 6-100th. The care of so small a number of worms would not be a great burthen to the farmer. One woman, with the assistance of a boy, for the labor of gathering the leaves during five weeks, would suffice. Nor would it be requisite to enlarge the house for the accommodation of the worms. The kitchen or sleeping room, if well ventilated would be sufficient to contain the worms from two ounces of eggs without inconvenience. The fixtures necessary for the accommodation of the worms would be so trifling that their cost can scarcely be calculated, especially as this expense would only be incurred in the first year. From this calculation made on an experiment so limited, it is easy to estimate how profitable it would be for farmers and proprietors of extensive grounds to cultivate the silk-worm, where they can have large plantations of Mulberry.—*Hartford Democrat.*

[From the Boston Mercantile Journal.]

BEEES.

We have often marvelled that our New England Farmers do not pay more attention to the rearing of bees. The produce of these industrious insects is far more profitable than the generality of persons may be inclined to imagine, and the little time which is necessary to bestow upon them is seldom uselessly employed. They will always thrive in the vicinity of fields of clover and flower gardens—and while the product of their labors will furnish no inconsiderable profit in a pecuniary point of view, the example of industry, which will thus be constantly placed before the younger portion of the community, may have the most beneficial effects. We lately met with the following anecdote, showing some of the advantages which may arise from keeping bees:

"A French bishop being about to make his annual visitation, sent word to a certain curate, whose ecclesiastical benefice was rather trifling, that he meant to dine with him; at the same time requesting that he would not put himself to any extraordinary expense. The curate promised to attend to the bishop's suggestion, but he did not keep his word, for he provided a most sumptuous entertainment. His lordship was much surprised, but could not help censuring the conduct of the curate, observing that it was highly ridiculous in a man whose circumstances were so narrow, to launch out into such expense, nay, almost to dissipate his entire income in a single day. 'Do not be uneasy on that score, my lord,' replied the curate 'for I assure you that what you now see is not the product of my curacy, which I bestow exclusively upon the poor.' 'Then you have a patrimony, sir?'—said the bishop. 'No sir,' 'You speak in riddles: how do you then do?' 'My lord, I have a convent of young damsels here, who do not let me want for any thing.' 'How! you have a convent!—I did not know that there was one in this neighborhood. This is all very strange, very unaccountable, Mr. Curate.' 'You are jocular my lord.' 'But come, sir, I entreat that you would solve the enigma: I would fain see the convent.' 'So you shall, my lord, after dinner; and I promise you that your lordship shall be satisfied with my conduct.'

Accordingly when dinner was over the curate conducted the prelate to a large enclosure, entirely occupied by bee-hives, and pointing to the latter, observed, 'this my lord, is the convent which gave us our dinner; it brings me in about 1800 livres per annum, upon which I live very comfortably, and with which I contrive to entertain my guests genteelly.' The surprise and satisfaction of the bishop at this discovery may easily be conceived. The sequel of the story informs us that afterwards whenever a curate made application to his lordship for an improved living, he would only reply, 'keep bees—keep bees.'

EXHIBITION OF HORSES.

The following article from the pen of one of our friends, who was present at the exhibition spoken of—and in whose judgment we rely, is freely placed in our paper, and adopted as our own.

Thursday of last week, being the day set apart

for the exhibition of Horses at Delaware City, many of the neighbors and a number of gentlemen from a distance attended; the rain however was so constant and the weather so unpleasant, but few horses were present. There were, however, some fine stallions and geldings. Of the former we may notice General Sewall's celebrated horse, Maryland Eclipse, who is decidedly one of the best horses in the country, also Mr. Rogers' Eclipse, a very fine horse, and Jersey Hero, a colt of Mark Anthony, and Black Hawk, by John Richards.

A very large 2 years old colt was brought by Mr. Allen, got by Delaware Eclipse; also a colt of Mr. Alexander M. Biddle, near St. Georges, he is 4 years old, a bright bay, by John Richards, this colt is very finely formed for beauty, strength and action, and it is believed he will make an excellent Race horse. He will probably be trained for some of the Fall races.

Among the geldings present, we cannot refrain from noticing a remarkably well matched pair of Horses, owned by Mr. Wm. Herdman, near Newport, they are of a beautiful cream color, with mane and tail of pure white, their forms are beautiful and their action fine, they appear to be spirited but well broken and kind.

Mr. Stillwell also exhibited his beautiful and celebrated horse Yellow Jacket. He is a beautiful light bay color, and for symmetry and action cannot be surpassed.

Had the weather proved favorable the meeting would have been of a much more interesting character; but as it was, there was much to be pleased with. It is really gratifying to see the farmers of this County, giving so much encouragement as they are now doing to the improvement of the breed of Horses, and if meetings of this description were more numerous they would undoubtedly prove beneficial to the Horse raising interest. As the rearing of good Colts is now becoming fashionable, it is to be hoped that breeders will bestow more time and pains than they have heretofore done in breeding and training them to the saddle and harness. It will add to the value of their stock and greatly promote the comfort of those who may purchase the horses. —*Del. Gazette.*

#### GRUBBING MACHINE.

Travelling lately on the banks of Connecticut river, in the vicinity of Hanover, I observed hundreds—and I believe thousands of rods, of strong substantial and durable fence made of white pine stumps extracted from the ground with their roots. Curiosity led me to inquire by what power and machinery, the operation of extracting was performed. An obliging stranger showed me one of the machines and explained the manner in which it was applied—and as I apprehend these machines may be used to great advantage in many parts of the United States where they have not been heard of, I will endeavor, as far as I can recollect to describe the machine, and explain the manner of using it.

The machine consists of a very strong pair of wheels, say 18 feet diameter; the axis is about 15 or 16 inches diameter. Near to, and the inside of one of the wheels, a third wheel, something less than the others, is framed on the axis as a hub. A large rope or hawser, is fastened to

the periphery of the small wheel and coils upon it. To the end of this hawser are hitched four oxen—a large chain is made fast to the centre of the axis and round the stump. The oxen drawing upon the hawser, turn the small wheel and axis, while the two large wheels remain stationary, only supporting the operation. The stump when thus extracted is borne off, swinging under the axis, to the line where the fence is to be made.

It may be necessary to add that where the stump is large and holds a strong grasp upon the earth, the most prominent top roots should be cut off 3 or 4 feet from the stump.

The fence is constructed by throwing the stumps into line, and stopping in here and there a root to secure the widest openings. To those acquainted with the durability of pine stumps, it is hardly necessary to observe that the fence constructed of them will remain sound for at least one generation.

The machine constructed as above and applied by four men and four oxen will extract from 70 to 80 stumps per day. Its usefulness needs no comment. There is nothing visionary about it. The experiment has been tried upon a large scale, and many a farmer who heretofore dreaded the pine stump as an enemy which would survive himself and annoy his heirs, now swings his undisturbed scythe or cradle over the strong ground which his fallen foe once occupied. —*Centreville Times.*

#### WILSON'S NEW MOWING MACHINE.

The success which has crowned the efforts of ingenuity in introducing machinery in aid of manufactures and the mechanic arts, has encouraged the attempt to afford a like auxiliary to agriculture. Mr. Wilson has constructed a machine all important in this great branch of industry, and has so far perfected it, that he is willing to submit it to the scrutiny of those most competent to decide. He has solicited the American Institute of this city to aid him in having his improvement fully and fairly tested. With this view an extensive meadow has been selected at Flatbush, Long Island, and Wednesday, the 19th of July, instant, 3 o'clock, P. M. has been determined upon as the time for the commencement of this interesting experiment. We believe the machine will fully answer public expectation. The Judge at the 9th Annual Fair of the American Institute fully impressed with the practical utility of this machine, for the purpose intended, reported in its favour, and a gold medal was awarded to the inventor. We look upon it, if successful, almost as important in agriculture as the substitution of the plough for the spade. The steam plough will no doubt follow in course, and cover the immense prairies of the West with golden harvests. Such recreations as this exhibition will afford every well wisher of our country, should cherish. We have no doubt it will attract an immense concourse.

Flatbush is one of the most beautiful villages in our vicinity, about 3½ miles from Brooklyn Ferry; the road is a delightful one. Flatbush exhibits in its soil a luxuriance that is rarely afforded in any part of our country. We understand that means of conveyance will be provided; we advise all to go and witness this novel display. We are desirous to request of the spectators who attend not to enter the field when the mowing is going on;

the location of the field is such as to afford full opportunity for all to witness the performance. —*N. Y. Star.*

#### On the destruction of Silk Grass or Milkweed.

Mr. Tucker: I have observed on many fields of a deep rich soil, especially meadows, a heavy growth of what are commonly called milkweed, and think if the owners knew how easily they might be destroyed, they would not suffer their best lands to be infested with them. This has induced me to communicate an experiment. When I was a child my father gave me a stick and bade me go whip the milkweeds. His instructions were that I should not cut off the main stalks, but whip the leaves and mutilate them in such a manner as to produce the greatest flow of the juice of the weed. I do not know when this was done, but recollect the weeds had become large, yet had not attained their full growth. Four or five blows were generally sufficient for each weed. The whipping was twice repeated after that at intervals of about two or three weeks. The next summer, but few of the weeds were to be seen, and such as made their appearance were dealt with in the same manner as had been done the year before, which summary punishment was sufficient to drive them effectually from a very fertile piece of meadow, so that they were no longer troublesome. —*Genesee Farmer. Amber, May 24.*

CORN—We have received an ear of corn, pulled on the 4th of July, and nearly fit for the table. It is not forward corn, neither was it raised in a garden, but was pulled in the field, from a cut of about 30,000 hills, in a nearly equal state of forwardness on the farm of Mr. J. W. Brice, Queen Anne's county. This shows well for the coming crop; indeed the season has been highly propitious.

The crops generally have improved very much, and with perhaps some few exceptions, will yield more than the general average for some years past. We have heard of several instances where rye has turned out well, which the owners, in the spring, were strongly tempted to plough up and put in corn. —*Kent Bugle.*

FRANKLINIAN ECONOMY—Aside from Franklin's discoveries in electricity and philosophy, a correspondent in the Washington Sun thus speaks of Dr. Franklin's discoveries in matters of domestic economy:

"To no native American is more honor due than to Dr. Franklin. His science, patriotism, industry, and morality, as well as his political sagacity, have been and are the subjects of general approbation; and, as common property, it is not necessary to dilate upon them. It is his investigating spirit of inquiry, as to whatever new his mind rested upon, and the beneficial results of his observations, that are now brought to view.

"Broom Corn, now cultivated to so profitable an extent in this country, owes its cultivation to Franklin's acute mind. A lady in Philadelphia held an imported clothes whisk in her hand, and whilst examining it as a novelty, he found a single grain still attached to the stalk; this he planted, and a large and increasing article of usefulness has been thus perpetuated in the U. States.



A paragraph from a northern newspaper of 1836 has a corroborating proof of the value of this discovery: 'The broom straw speculation bids fair to run as high this year as it did last. A week ago speculators were offering \$50 an acre for the growing brush.'

[The Yellow, or Golden Willow, which now flourishes in most parts of the union, was introduced by the same friend to his country and mankind. In a wicker-work imported basket offered to his view, Dr. Franklin found some of the twigs were sprouting; he took them out and presented them to Mr. Norris, of Philadelphia, who succeeded in raising them very successfully, and to a great height.]

**To cure a foundered Horse.**—A highly respectable gentleman of this county, a few days since, communicated to a friend of ours the following cure for a foundered horse. He has tried it with complete success in five different cases, some of them very severe ones, and has heard of its success in many more:

Curry the horse with a sharp curry comb, very briskly against the hair, from his hoofs over his whole body, and with sufficient severity to draw blood slightly in places; then jump on him, run him some distance, and he is well.—*Lexington (Va.) Gazette.*

**WORMS ON TREES.**—The New York Evening Post says, the trees in that city are much infested with worms of the caterpillar kind, which, in some instances, entirely devour the foliage, and leave the branches as naked as in winter. The following has been given as a recipe to prevent their ravages:

Dissolve a quantity of sal ammoniac in water. Dip a brush in the solution and pass it over the trunk of the tree, and this will prevent the worms from ascending from the ground. Take a syringe, and with it throw the water among the branches and leaves, which will cause the worms to let go their hold. This may be done from an upper window, if the tree stands near the house.

**LARGE STRAWBERRIES.**—Mount Carbon, vs. New Jersey.—A few days since we observed an extract of a letter from New Jersey to the editor of the U. S. Gazette, stating that twelve strawberries were picked from the writer's bed, which measured thirty-nine inches in circumference.—On Wednesday last we received from Jos. White, esq. of Mount Carbon, twelve strawberries, raised in his garden, which measured forty-six and a half inches in circumference, and fifteen inches in length. The following is the actual measurement of each strawberry:

4 1/2	3 7-8
3 3/4	3 1/2
4 1-8	3 7-8
4	3 3/4
3 5-8	3 1/4
3 1/2	

46 1/2 in. in circum.  
15 in. in length.

The Strawberries are of the kind known as the "Landreth Premium." We challenge New Jersey, or any other state or place to beat it if they can.—*Miner's Journal.*

**AMERICAN SILK WORM.**—Mr. C. F. Durant, of Jersey city, has discovered that this country has its native Silk Worm as well as the old world, that spins as fine and soft a material as the imported. The cocoon is much larger, yielding about 40 per cent. more than the European worm. They are covered with a kind of shell of compact and hardened silk, which seems to require moisture and warmth to effect the process of hatching. Mr. D. is endeavoring to remedy this difficulty. The hatching being much later than the foreign worm, it is supposed that a second crop may be obtained in the same cocoonery.

**QUERCITRON BARK.**—In answer to the inquiry of a correspondent from Kentucky, of the Editor of Bicknell's Reporter, of Philadelphia, as to what species of oak this bark is obtained from, how it is prepared, what use is made of it, &c. it is stated that Quercitron is the *Black Oak bark*; that it is prepared by shaving off the outer bark, grinding the inner bark, drying, and packing it in hogheads. It is used almost exclusively for dyeing, and is sold largely in Philadelphia and New York, from at \$30 to \$40 per ton of 2,240 lbs. It is packed in casks larger than a whiskey hoghead, each of which contains about 15 cwt. The distinction in quality consists in its degree of clearness and brightness of color. It is inspected before sale. Dr. Bancroft first discovered the useful properties of this bark, and obtained a patent for his invention in the year 1775.—*Journal of American Institute.*

[From the French Annales des Arts and Manufactures.]

**Methods of Preserving wood from the effects of the weather.**—Take three parts of air slackened lime, two parts of wood ashes, and one part of fine sand; sift the whole, and add so much linseed oil as is necessary to form a mass that can be laid on with a paint brush. To make this mixture perfect and more durable, it will be well to grind it on a marble. Two coats of it is all that are necessary—the first should be rather light, but the second must be put on as thick as the brush will permit. This composition well prepared is impenetrable to water; resists both the influence of the weather and the action of the sun which hardens it and makes it more durable.

PATENT OFFICE,  
Washington, July 13, 1837.

In consequence of the destruction of the records of the Patent Office by fire in December last, Congress provided by law for recording all patents anew; and no patent can be given in evidence until the same has been recorded again in this office. The law provides for the record of all patents which have been issued, whether the same have or have not expired. Such record, it is believed, will be honorable to inventors, and highly useful in the future management of the Patent Office. Arrangements are accordingly made for recording all patents anew in this office; expecting that persons holding patents will promptly comply with the law in this respect. It is hoped none will delay transmitting patents, because the inven-

tion may be deemed unimportant. A copy of every patent issued is desirable, as the best means of preventing impositions. Many persons have already complied with the law, and their patents have been recorded and returned to them; and all who have omitted to forward their papers are requested to send them to this office by mail, without delay. In this mode, patents will be secured from infringement, and useful inventions perpetuated. Papers forwarded will be safely kept and speedily returned. Transfers or assignments of patents are in like manner required to be recorded anew. Publishers of newspapers will promote the cause of science, as well as oblige their customers, by publishing this notice.

HENRY L. ELLSWORTH,  
Commissioner of Patents.

**Winter products of a Devon Cow.**—At our request, Abm. P. Holdrich, esq. of Spencer-town had an accurate memorandum kept of the butter made from a Devonshire cow, which calved late in autumn. The result was, that from the 10th December to the 18th January, including both days, there was made from her milk 56 pounds of well-worked butter, nearly equal to two pounds per day. The cow was fed with roots, hay, and buckwheat bran. Estimating it at 20 cents per pound, the butter made during the month, and in the depth of winter, was worth \$11 20; and if we consider this the average product of 8 months in the year, the aggregate amount for that period would be \$89 60. We need no better illustration than this, of the importance of keeping good animals, and of keeping them well.

**GREAT CORN.**—A friend of ours at Canterbury in this state informs us that there is now growing in that neighborhood a field of corn that measures 8 feet 3 inches in height, and concludes by saying "New Castle county, beat that if you can."  
*Delaware Gazette.*

#### ITALIAN SPRING WHEAT FOR SEED.

THE undersigned having been appointed agent for the sale of a lot of first rate Italian Spring wheat, begs leave to notify those who may desire to procure seed, that he is prepared to receive orders for the same. This wheat will be cleaned with great care, put up in tight barrels, and sold in lots of one or more barrels. As the quantity the undersigned expects to receive will not be more than 140 barrels, persons desirous of procuring a supply will make early application. The price will be \$3 1/4 per bushel, the cash to be paid on the delivery of the grain. For the guidance of purchasers, he would mention that each barrel is supposed to contain about 3 1-2 bushels of wheat.  
Address, (post paid) EDWARD P. ROBERTS,  
July 25 4t Baltimore, Md.

#### INTERESTING TO FARMERS.

HAVING procured the best machinist in Maryland, we are now ready to fill all orders entrusted to our care, for the following implements:—WHEAT FANS, STRAW CUTTERS and CORN SHELLERS, &c. all of which articles are made in superior style.—They also manufacture GRAIN CRADLES warranted superior to any ever manufactured in Baltimore for cost of cutting, and saving of grain, being peculiarly adapted to the economy of force and labor.—PLOUGHS of all descriptions neatly got up. The public are invited to call and judge for themselves; the subscribers being confident that all persons competent to discriminate between the relative value of implements of husbandry, will give the preference to theirs.  
JOHN T. DURDING & CO.  
je 27 4t Fronting Grant and Elliott etc.

## BALTIMORE PRODUCE MARKET.

These Prices are carefully corrected every Monday

	PER	FROM	TO
BEANS, white field, .....	bushel	1 25	1 50
CATTLE, on the hoof, .....	100lbs	7 50	9 00
CORN, yellow .....	bushel	1 00	1 03
White, .....	"	95	100
COTTON, Virginia, .....	pound		
North Carolina, .....	"		
Upland, .....	"	10	12 1/2
Louisiana 20a21-Alabama	"		
FRUIT, .....	pound	50	52
FLAXED, .....	bushel	1 37	1 50
FLOWER MEAL—Best wh. wh't fam.	barrel	11 00	12 00
Do. do. baker's, .....	"		
SuperHow. st. in good de'd	"	8 75	9 00
" " wagon price, .....	"		
City Mills, super, .....	"	8 25	8 50
" extra, .....	"	8 50	9 00
Susquehanna, .....	"	9 00	
Rye, .....	"	6 00	
Kiln-dried Meal, in hhds.	hhd.		
do. in bbls.	bbl.		
GRASS SEEDS, red Clover, .....	bushel	7 50	
Timothy (herds of the north)	"	2 50	
Orchard, .....	"		3 00
Tall meadow Oat, .....	"		2 75
Herds, or red top, .....	"		1 25
HAY, in bulk, .....	ton	12 00	18 00
HEMP, country, dew rotted, .....	pound	6	7
" water rotted, .....	"	7	8
HOGS, on the hoof, .....	100lb.	6 50	6 75
Slaughtered, .....	"		
Hogs—first sort, .....	pound	9	
second, .....	"	7	
refuse, .....	"	5	
LIME, .....	bushel	32	35
MUSTARD SEED, Domestic, —; blk.	"	3 50	4 00
OATS, .....	"	60	
PEAS, red eye, .....	bushel		
Black eye, .....	"	87	1 00
Lady, .....	"	1 00	
PLASTER PARIS, in the stone, cargo,	ton	4 00	
Ground, .....	barrel	1 62	
PALMA CHRISTA BEAN, .....	bushel		
RICE, .....	pound	3	4
RYE, .....	bushel	80	85
Susquehanna, .....	"		none
TOBACCO, crop, common, .....	100 lbs	2 50	3 00
" brown and red, .....	"	4 00	6 00
" fine red, .....	"	8 00	10 00
" wrappery, suitable	"		
for segars, .....	"	10 00	20 00
" yellow and red, .....	"	8 00	10 00
" good yellow, .....	"	8 00	12 00
" fine yellow, .....	"	12 00	16 00
Seconds, as in quality, .....	"		
ground leaf, .....	"		
Virginia, .....	"	4 50	9 00
Rappahannock, .....	"		
Kentucky, .....	"	4 00	8 00
WHEAT, white, .....	bushel	1 80	1 90
Red, best, .....	"	1 60	1 75
Maryland inferior	"	1 00	1 25
WHISKY, 1st pf. in bbls. ....	gallon		35
" in hhds. ....	"		33
" wagon price, .....	"		30
WAGON FREIGHTS, to Pittsburgh,	100lbs	1 25	
To Wheeling, .....	"	1 25	
WOOL, Prime & Saxon Fleeces, ...	pound	50 to 60	30 32
Full Merino, .....	"	45	50 26 30
Three fourths Merino, .....	"	40	45 24 26
One half do, .....	"	36	40 22 24
Common & one fourth Meri.	"	33	36 20 22
Pulled, .....	"	36	38 24 26

## A JENNET FOR SALE.

THE subscriber has for sale a JENNET of good size and unexceptionable pedigree. She is 13 years old, and warranted sound. As her owner is desirous of selling her a bargain will be given in her. Applications made in writing must be post paid, to EDW. P. ROBERTS, ap 25 Baltimore, Md.

## BALTIMORE PROVISION MARKET.

	PER	FROM	TO
APPLES, .....	barrel		
BACON, hams, new, Balt. cured, ..	pound		13 1/2
Shoulders, .....	"		11
Middlings, .....	"	do	do
Assorted, country, .....	"	8 1/2	9
BUTTER, printed, in lbs. & half lbs.	"	25	
Roll, .....	"	16	20
CIDER, .....	barrel		
CALVES, three to six weeks old, ..	each	5 00	7 00
COWS, new milch, .....	"	25 00	40 00
Dry, .....	"	9 00	12 00
CORN MEAL, for family use, .....	100lbs	2 12	2 18
CHOP RYE, .....	"	1 75	1 87 1/2
EGGS, .....	dozen	18	
FISH, Shad, No. 1, Susquehanna,	barrel	7 50	
No. 2, .....	"	7 00	
Herrings, salted, No. 1, .....	"	2 87	
Mackerel, No. 1, —, No. 2, .....	"	8 00	9 00
No. 3, .....	"		4 50
Cod, salted, .....	cwt	3 00	3 25
LARD, .....	pound	8 1/2	10

## BANK NOTE TABLE.

Corrected for the Farmer & Gardener, by Samuel Winchester, Lottery & Exchange Broker, No. 94, corner of Baltimore and North streets.

	PER	FROM	TO
U. S. Bank, .....	par		
Branch at Baltimore, .....	do		
Other Branches, .....	do		
MARYLAND.			
Banks in Baltimore, .....	par		
Hagerstown, .....	do		
Frederick, .....	do		
Westminster, .....	do		
Farmers' Bank of Maryland, do	do		
Bank payable at Easton, ...	1		
Salisbury, .... 2 per ct. dis.	2		
Cumberland, .....	3		
Millington, .....	do		
DISTRICT.			
Washington, .....	do		
Georgetown, } Banks, 1p.c.			
Alexandria, .....	do		
PENNSYLVANIA.			
Philadelphia, .....	do		
Chambersburg, .....	1		
Gettysburg, .....	do		
Pittsburg, .....	3 1/2		
York, .....	1		
Other Pennsylvania Bks. 4			
Delaware [under \$5], ...	6		
Do. [over \$5], .....	2		
Michigan Banks, .....	10		
Canadian do, .....	10 1/2		
VIRGINIA.			
Farmers Bank of Virgin. 2			
Bank of Virginia, .....	do		
Branch at Fredericksburg do	do		
Petersburg, .....	do		
Norfolk, .....	do		
Winchester, .....	do		
Lynchburg, .....	2 1/2		
Danville, .....	do		
Bank of the Valley, ...	2		
Branch at Romney, ...	2 1/2		
Do. Charlestown, 2			
Do. Leesburg, .....	2		
Wheeling Banks, ...	4		
Ohio Banks, generally 6 1/2			
New Jersey Banks gen. 5			
New York City, .....	1		
New York State, ...	3 1/2		
Massachusetts, .....	3 1/2		
Connecticut, .....	3 1/2		
New Hampshire, ...	3 1/2		
Maine, .....	3 1/2		
Rhode Island, ...	3 1/2		
North Carolina, ...	6		
South Carolina, ...	8 1/2		
Georgia, .....	do		
New Orleans, .....	15		

## GARDEN SEED.

THE subscriber has just received his general supply of fresh Garden Seeds from the Messrs. Landreth's of Philadelphia—those for retailing bearing their label and warranted. The Messrs. Landreth's grow the most of the seeds they vend, and theirs is the oldest and probably the most extensive establishment in this country, and their seeds have no rival as to quality. Orders from country dealers will be supplied at short notice. Catalogues furnished gratis.

Feb. 14

JONATHAN S. EASTMAN.

## A JACK FOR SALE.

THE subscriber is authorized to sell a JACK, at a price which any gentleman disposed to purchase would consider moderate. He is 4 1/2 inches high, and has proved himself a sure foal getter; his offspring being remarkable for their fine appearance, robust constitutions, and size. He was imported by Commodore Elliot, from Brazil, and is now about 14 years of age.

All applications for him must be post paid, addressed to EDWARD P. ROBERTS, Baltimore, Md.

Ap. 18. 4t. Printed by Sands & Neilson, N. E. corner of Charles and Market streets.

## TO PRINTERS.

FOR SALE—A first rate SMITH PRESS, the plate 24 by 36 inches, which will work a form the size of the daily papers in Baltimore. It has the latest improvements of the patentee, has been in use a short time, and is as good as new. Any printer requiring a press of the size, cannot be better supplied than by the purchase of this. It can be examined while in operation, and anyone at a distance disposed to purchase, is requested to select some printer to inspect it. The original cost and expenses deliverable to us, was about \$300—it will be sold together with the roller frames, stocks, &c. complete as it now stands in operation, for \$275, on a credit of three months, for an approved note.

Also, a good RAMAGE PRESS, now in operation; price \$60. Also, a STANDING PRESS, iron bound wooden frame, with a powerful screw; will be sold low. Apply to SANDS & NEILSON, Office of "Farmer & Gardener,"

July 25 4t Corner of Charles & Market sts. Baltimore.

## FARMERS' REPOSITORY,

PRATT STREET,

Between Charles &amp; Hanover sts Baltimore, Md.

During the last four years the Proprietor has erected two extensive Establishments for the manufacture of Agricultural Implements generally, including an extensive Iron Foundry, Trip Hammer, &c. With these facilities and the most experienced workmen, (many of whom have been several years in his employ,) and the best materials, he flatters himself that he will continue to give general satisfaction to his customers, his object is to confine himself to useful implements, and to have them made in the best possible manner and on reasonable terms.

The following are some of the leading articles now in hand, viz. his own Patented Cylindrical Straw Cotton, of various sizes and prices—these machines have never been equalled by a similar machine in any part of the world.

Corn and Tobacco Cultivators  
Threshing Machines, with or without horse power  
Superior Grain Cradles  
F. H. Smith's Patent Line Spreaders  
A great variety of Ploughs of all sizes, with wrought and cast iron Shares  
Swingle Trees and Hammers  
Also, a great variety of Plough Castings, constantly on hand for sale by the piece or ton. All kinds of Machine Castings made to order; repairs on Ploughs and Machinery done at short notice  
Liberal discount made to those who purchase to sell again.  
Wheat FANS, of various sizes  
Mattocks, Picks and Grubbing Hoes  
Corn Shellers  
All kinds of Grass SEEDS and Seed Grain bought and sold by him, and particular attention paid to their quality.

Likewise constantly on hand a general assortment of Mr. D. Landreth's superior GARDEN SEEDS, raised by himself, and warranted genuine. All communications by mail, post paid, will receive prompt attention.  
July 4 J. S. EASTMAN.

## AMERICAN FARMER.

COMPLETE sets of this excellent periodical, consisting of 15 volumes each, for sale at this office.

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Inquiry concerning spring wheat; amount of bounty on the growth of wheat in Maine; a good proposition in the valley of Virginia to insure a supply of lime; notice of the agricultural survey in Massachusetts; Electro-Magnetic power described; ground limestone as a manure; Clark's method of rearing worms 50 years ago; silk culture in a nutshell; exhibition of horses in Delaware; description of a grubbing machine; Wilson's mowing machine; early maturity of corn; economy of Franklin; cure for a foundered horse; do. for worms on trees; large strawberries; discovery of a native silk worm; quercitron bark; preservation of wood; notice of the patent office; great products of a Devon cow; a great field of corn; advertisements, prices current, &c.